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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,673	02/09/2001	Carl Schiffer	127.003	7995

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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/701,673

Applicant(s)

SCHIFFER, CARL

Examiner

Mark Eashoo, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 2(2) of such treaty in the English language.

Claims 9, 10, 23, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Boucherie (US Pat. 6,051,176).

Regarding claims 9 and 23: Boucherie teaches the claimed device for producing a toothbrush, comprising: an injection molding tool having a plurality of identical mold cavities (Figs. 2 and 4); and a plurality of plastifying/injection units (Fig. 4, elements 11 and 13), each which communicates with a different set of mold cavities (Fig. 4). It is noted that Fig. 2, shows two sets of mold cavities (elements 3 and 7), wherein each set comprises a plurality of identical mold cavities (elements 23 and 24).

Although, Boucherie refers to the plastifying units as injection units, it is inherent that the entire 'injection unit' comprises an extruder or some equivalent means to make the polymeric material molten/fluid.

Regarding claims 10 and 24: Boucherie teaches two sets of mold cavities (elements 3 and 7), wherein each set comprises a plurality of identical mold cavities (elements 23 and 24) and one set of mold cavities is larger than the other (Fig. 4). Also, it is inherent that one set of mold cavities is larger than those other set because an extra of second component is added to the toothbrush (7:9-58).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucherie (US Pat. 6,051,176) in view of Beck et al. (US Pat. 5,922,363).

Regarding claims 1 and 15:

Boucherie teaches the basic claimed process of producing a toothbrush, comprising: injecting material into molding tool having a plurality of identical molds cavities (Figs. 2 and 4); filling a plurality of identical molds cavities in one injection molding cycle (Fig. 4 and 7:9-24); and wherein different materials from different injection units via separated channels (Fig. 4). It is noted that Fig. 2, shows two sets of mold cavities (elements 3 and 7), wherein each set comprises a plurality of identical mold cavities (elements 23 and 24).

Boucherie teaches injection units (Fig. 4, elements 11 and 13) but is silent with regard to the units as including a means of plastifying the polymeric components. Nonetheless, Beck et al. teaches injection units (Fig. 1, elements 26 and 28) comprising extruders or plastifying means (5:15-20). Boucherie and Beck et al. are combinable because they are from the same field of endeavor, namely, injection molding into multi-cavity molds. At the time of invention a person having ordinary skill in the art would have found it obvious to have used the plastifying means, as taught by Beck et al., in the process of Boucherie, because Beck et al. demonstrates that such plastifying means is an equivalent alternative for an injection unit.

Regarding claims 2 and 16:

Beck et al. teaches that the plastified material is kept molten in the channels or hot runner manifold (3:25-59). Boucherie and Beck et al. would have been combined for the reasons as set forth above.

Regarding claims 3 and 17:

Boucherie teaches two sets of mold cavities (Figs. 2 and 4, elements 3 and 7), wherein each set comprises a plurality of identical mold cavities (elements 23 and 24).

Regarding claims 4-7 and 18-21:

Boucherie teaches a two-stage molding operation wherein a first molded object is transferred and a second/different material is over-molded in the same molding tool (Fig. 4 and 7:9-23). It is noted that Boucherie uses separate channels for injection of the first and second materials (Fig. 4).

Regarding claims 8 and 22:

Boucherie teaches molding around brush hairs which have been inserted into the mold cavities (7:54-58).

Claim 9, 10, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucherie (US Pat. 6,051,176) in view of Beck et al. (US Pat. 5,922,363). *This is an alternative rejection if it is not inherent that the entire 'injection unit' comprises an extruder or some equivalent means to make the polymeric material molten/fluid.*

Regarding claims 9 and 23:

Boucherie teaches the claimed device for producing a toothbrush, comprising: an injection molding tool having a plurality of identical mold cavities (Figs. 2 and 4); and a plurality of plastifying/injection units (Fig. 4, elements 11 and 13), each which communicates with a different set of mold cavities (Fig. 4). It is noted that Fig. 2, shows two sets of mold cavities (elements 3 and 7), wherein each set comprises a plurality of identical mold cavities (elements 23 and 24).

Boucherie teaches injection units (Fig. 4, elements 11 and 13) but is silent with regard to the units as including a means of plastifying the polymeric components. Nonetheless, Beck et al. teaches injection units (Fig. 1, elements 26 and 28) comprising extruders or plastifying means (5:15-20). Boucherie and Beck et al. are combinable because they are from the same field of endeavor, namely, injection molding into multi-cavity molds. At the time of invention a person having ordinary skill in the art would have found it obvious to have used the plastifying means, as taught by Beck et al., in the process of Boucherie, because Beck et al. demonstrates that such plastifying means is an equivalent alternative for an injection unit.

Regarding claims 10 and 24:

Boucherie teaches two sets of mold cavities (elements 3 and 7), wherein each set comprises a plurality of identical mold cavities (elements 23 and 24) and one set of mold cavities is larger than the other (Fig. 4). Also, it is inherent that one set of mold cavities is larger than those other set because an extra of second component is added to the toothbrush (7:9-58).

Claim 11-14 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucherie (US Pat. 6,051,176) in view of Beck et al. (US Pat. 5,922,363).

Boucherie teaches the basic claimed device as set forth above.

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Regarding claims 11 and 25:

Boucherie does not teach different plastifying units which are assigned to individual cavities of a particular set of mold cavities. However, Beck et al. different plastifying units which are assigned to individual cavities of a particular set of mold cavities. (Fig. 1). At the time of invention a person having ordinary skill in the art would have found it obvious to have used different plastifying units which are assigned to individual cavities of a particular set of mold cavities, as taught by Beck et al., in the process of Boucherie, because Beck et al. suggests that such equipment design allows for controlled injection of sequentially supplied materials at reduced cost.

Regarding claims 12-14 and 26-28:

Boucherie does not teach a plurality of shut-off devices or valves (element 20) in communication with different mold cavities and plastifying units. However, Beck et al. teaches a plurality of shut-off devices or valves (element 20) in communication with different mold cavities and plastifying units (Fig. 1). Beck et al. also teaches a control mechanism for the plurality of valves and controlling them individually (5:15-6:15). At the time of invention a person having ordinary skill in the art would have found it obvious to have used the valves and their control mechanism, as taught by Beck et al., in the process of Boucherie, because Beck et al. suggests that such equipment design allows for controlled injection of sequentially supplied materials at reduced cost.

Response to Arguments

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory

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action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaanni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

08/Jun/04

me
1/8/04